



Lead in Construction

What This Training Will Cover

We will cover the following topics:

- Health hazards of lead
- How you are exposed to lead
- Respiratory protection
- Medical surveillance
- Engineering controls & work practices
- How we control your lead exposure
- WISHA Lead standards



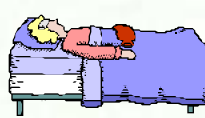

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Health Hazards of Lead

General Health Effects

Lead is really bad for your health if it gets in your body. Here's what it can cause:

- headaches, tiredness and insomnia
- Loss of appetite and stomach pain
- Pain, weakness or twitching in your muscles
- Reduced sex drive and birth defects
- Kidney damage
- Permanent brain and nerve damage

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Health Hazards of Lead

Effects on Reproduction

Lead is especially harmful to the fetus in a pregnant woman.

Lead is also harmful to men or women trying to have kids.




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Health Hazards of Lead

Effects of Lead on Children

Children are very susceptible to effects of lead.



The amount that can harm them is much less than adults.



It is important not to take any lead dust home on your clothing.

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Health Hazards of Lead

Is there a safe amount of lead?

There is no real "safe" amount of lead, but there are levels that cannot be legally exceeded.

In the air: no more than 50 micrograms per cubic meter

These levels are in the WISHA safety regulations on lead.

In your blood: no more than 40 milligrams per deciliter



Red Blood Cell

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Lead Exposure

How can lead get in your body?

You can get lead into your body by:

Inhaling lead dust or lead spray paint.



Inhaling lead fumes from welding or burning lead paint.



Swallowing lead dust on your hands from eating, drinking or smoking.



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Lead Exposure

Some Jobs Where You Could be Exposed to Lead

Bridge painting,  

Removing lead-based paint on old buildings or houses,  

Grinding or sandblasting lead paint on metal structures,  

Cutting or removing lead pipe in old buildings,  


Using solder that contains lead.  

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Lead Exposure

The following products used or items found on this worksite contain lead:

[list products or items here]



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Lead Exposure

You may be exposed to lead at this jobsite in the following activities or locations:

[Describe or list specific jobs or activities where employees are or may be exposed to lead at your worksite here.]


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Personal Protective Equipment

What protective equipment is needed?

coveralls



work shoes



gloves



A respirator - if the amount in air exceeds the legal limit



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Respirators

Type of Respirators for Lead

In many construction jobs involving lead, you must wear a respirator.

The type of respirator worn depends on the amount of lead in the air.

You will be provided with the following type of respirator:

[List or describe respirators used here]



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Respirators

Using Respirators

Respirators must be worn at all times when the amount of lead in the air is above the legal limit.

Respirators must fit properly to prevent leaks.

You must have a respirator medical evaluation before you wear a respirator.



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Respirators

Respirators Must Fit Properly

You must have a respirator fit-test before you wear a respirator.



You can't have a beard when you wear a tight-fitting respirator.

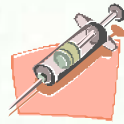


We will train you on how to use your respirator.

Medical Monitoring

What medical monitoring is needed?

Anyone who is exposed to lead above the "action level" must be provided blood tests.



If the amount of lead in your blood is more than 40, we will send you for a medical exam.

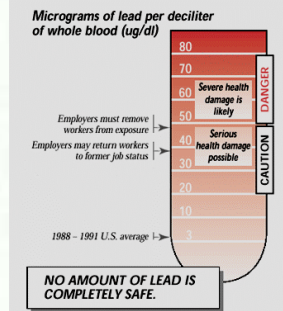


Blood tests will be routinely done if you are exposed to lead for 30 or more days per year.

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Lead in the Blood

Allowable Blood Lead Levels



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Training Break

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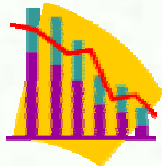
Medical Removal

Medical Removal for Lead Exposure

If the amount of lead your blood is above 50, you will be temporarily removed from the lead job.

You can't return to that job until your blood level drops below 40.

Your blood must be tested monthly until the lead level drops below 40.



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Medical Removal

Why is medical removal required?

Medical removal is required is because of the serious health effects of lead.

Your body will gradually rid itself of lead over time.

You do not lose any earnings, seniority or benefits and you can return to former job status.



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Work Practices

Work Practices to Reduce Lead Exposure

There are several ways you can reduce your lead exposure:

Always wear your respirator,



Don't eat, drink or smoke in the area where there is lead,



When you take a break, wash your hands before eating, drinking or smoking.



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Work Practices

Work Practices to Reduce Lead Exposure

Use separate work clothing,



and boots,



Keep your street clothing in a clean place,



Don't wear your work clothing or boots home,



Laundry clothing at work.

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Work Practices

Work Practices to Reduce Lead Exposure

Don't remove dust by blowing down or shaking out your clothing.



Take a shower at the end of the shift when required.



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Work Practices

What are some other work practices?

Don't dry sweep or blow down dust containing lead,

Use a high-efficiency vacuum instead.

Use water when grinding, sanding or cutting objects with lead,




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Controlling Lead Exposure


Other Methods of Controlling Lead Dust

Natural or exhaust ventilation can reduce lead levels in buildings or confined areas.


Some grinders and sanders have exhaust ventilation attached.



or



Exhaust fan




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Controlling Lead Exposure

What else we do to reduce your lead exposure

List other practices here.



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Lead Chelation

What is lead chelation?

"Chelation" is the taking of certain drugs that help rid the body of lead.

It is a form of treatment for high lead levels in the body.

It is not allowed on a routine basis.

Only a doctor can authorize and supervise lead chelation.



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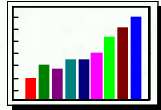
Records

Medical and Air Sampling Records

You have the right to see any of your medical records related to lead.



You also have the right to see results of air sampling for lead.



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Lead Regulations

WISHA Lead Regulations for Construction

WISHA lead regulations for construction is found in the construction safety standards.

It contains much more information in detail.

A copy of this standard is available if you are interested.



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Lead in Construction

The next slides are optional quiz questions.

Lead in Construction Quiz

Question 1

How can you get lead in your body?

- a) By breathing lead dust
- b) Being in a building with lead paint
- c) Getting lead dust on your hands and then eating
- d) None of the above

Lead in Construction - Quiz

Question 2

Why can't you wear work clothing home when you work around lead?

- a) They are dirty and smelly.
- b) The dust you bring home can make your kids sick.
- c) You can wear your work clothes home if you blow them off first.
- d) Your boss will get mad at you.

Lead in Construction - Quiz

Question 3

Why must you be clean-shaven to wear a respirator?

- a) The respirator will slide off a beard.
- b) We want a clean-cut look in this company.
- c) The respirator will leak even with short stubble.
- d) Beards interfere with breathing through a respirator.

Lead in Construction - Quiz

Question 4

What is the allowable amount of lead in your blood?

- a) no lead at all
- b) up to 20 milligrams per deciliter
- c) up to 40 milligrams per deciliter
- d) lead is not found in blood.

Lead in Construction - Quiz

Question 5

Which of the following is not a good work practice to control lead exposure?

- a) Blowing dust off your clothing at the end of the day.
- b) Using water on a grinder
- c) Using an exhaust fan to suck away lead dust.
- d) Taking a shower at the end of the workshift.
